**Amendments to the Claims:** 

This listing of claims will replace all prior versions, and listings, of claims in the

application:

**Listing of Claims:** 

1. (previously presented) Digital amplifier for converting an audio signal to a power

output comprising:

a power supply port;

a bridge circuit with at least one pair of switches; and

a ripple suppression circuit for suppressing voltage ripples in a supply voltage

supplied to the bridge circuit with at least one pair of switches via the voltage supply

port;

wherein the ripple suppression circuit is arranged between the power supply port

and the bridge circuit with at least one pair of switches;

wherein the switches are transistors;

wherein the ripple suppression circuit is connected to a first transistor of the at

least one pair of transistors; and

wherein the ripple suppression circuit is configured to drive the first transistor of

the at least one pair of transistors in a linear region of the first transistor.

2. (original) The digital amplifier according to claim 1, wherein the ripple suppression

circuit comprises a linearly controlled voltage controller.

3. (original) The digital amplifier according to claim 2, wherein the controlled voltage

controller is for multiple channels of the amplifier; wherein the least one pair of switches

5

is configured as an H-bridge; and wherein a coarse supply voltage setting is applied in

front of the controlled voltage controller.

4. (canceled)

Attorney Docket No. DE030102US1

Serial No. 10/552,060

Amendment and Response to Office Action

5. (previously presented) The digital amplifier of claim 1, wherein the ripple suppression

circuit is configured to generate an error signal on the basis of a comparison of a voltage

at the power supply port to a reference voltage and a voltage drop over a second transistor

of the at least one pair of transistors and to control a gate voltage of the first transistor on

the basis of the error signal to drive the first transistor in the linear region.

6. (previously presented) The digital amplifier of claim 1, wherein the ripple suppression

circuit comprises a band pass filter for limiting the bandwidth of the ripple suppression

circuit to reduce requirements for a control loop; and wherein the ripple suppression

circuit further comprises a sample and hold circuit for sampling a voltage at the power

supply port at duty cycles.

7. (previously presented) The digital amplifier of claim 1, further comprising a reference

voltage source which generates the reference voltage on the basis of a voltage at the

power supply port to ensure a required compensation margin.

8. (original) The digital amplifier according to claim 1, wherein at least one pair of

switches comprises power transistors and wherein the power transistors and the ripple

suppression circuit are integrated in a module or integrated circuit.

9. (original) The digital amplifier according to claim 1, wherein a compensation margin

of the ripple suppression circuit is adapted to an output power of the amplifier such that it

is low at a high output power of the amplifier and wherein the digital amplifier is a class

D amplifier.

10. (canceled)

11. (original) A ripple suppression circuit for connection between a power supply and a

class D amplifier, the class D amplifier including at least one pair of transistors, wherein

the ripple suppression circuit is connected to a first transistor of the at least one pair of

transistors, and wherein the ripple suppression circuit is configured to drive the first

Attorney Docket No. DE030102US1

Serial No. 10/552,060

transistor of the at least one pair of transistors in a linear region of the first transistor.

## 12. (canceled)

13. (original) Method for suppressing ripples in a power supply voltage of a class D amplifier, wherein the class D amplifier includes at least one pair of transistors, the method comprising the step of:

driving of a first transistor of the at least one pair of transistors in a linear region of the first transistor.

14. (currently amended) Digital amplifier for converting an audio signal to a power output comprising:

a power supply port;

a bridge circuit with at least one pair of switches; and

a ripple suppression circuit for suppressing voltage ripples in a supply voltage supplied to the bridge circuit with at least one pair of switches via the voltage supply port;

wherein the ripple suppression circuit is arranged between the power supply port and the bridge circuit with at least one pair of switches; and

wherein the ripple suppression circuit comprises a linearly controlled voltage controller;

wherein the switches are transistors;

wherein the ripple suppression circuit is connected to a first transistor of the at least one pair of transistors; and

wherein the ripple suppression circuit is configured to drive the first transistor of the at least one pair of transistors in a linear region of the first transistor;

wherein the ripple suppression circuit is configured to generate an error signal on the basis of a comparison of a voltage at the power supply port to a reference voltage and a voltage drop over a second transistor of the at least one pair of transistors and to control a gate voltage of the first transistor on the basis of the error signal to drive the first

## transistor in the linear region.

## 15. (canceled)

16. (previously presented) The digital amplifier according to claim 14, wherein the switches are transistors:

wherein the ripple suppression circuit is connected to a first transistor of the at least one pair of transistors; and

wherein the ripple suppression circuit is configured to drive the first transistor of the at least one pair of transistors in a linear region of the first transistor;

further comprising a reference voltage source which generates the reference voltage on the basis of a voltage at the power supply port to ensure a required compensation margin.

17. (previously presented) The digital amplifier according to claim 14, wherein at least one pair of switches comprises power transistors and wherein the power transistors and the ripple suppression circuit are integrated in a module or integrated circuit.

18. (previously presented) The digital amplifier according to claim 14, wherein a compensation margin of the ripple suppression circuit is adapted to an output power of the amplifier such that it is low at a high output power of the amplifier and wherein the digital amplifier is a class D amplifier.

19. (previously presented) Digital amplifier for converting an audio signal to a power output comprising:

- a power supply port;
- a bridge circuit with at least one pair of switches;
- a ripple suppression circuit for suppressing voltage ripples in a supply voltage supplied to the bridge circuit with at least one pair of switches via the voltage supply port;

Attorney Docket No. DE030102US1 Serial No. 10/552,060 wherein the ripple suppression circuit is arranged between the power supply port and the bridge circuit with at least one pair of switches; and

a reference voltage source which generates the reference voltage on the basis of a voltage at the power supply port to ensure a required compensation margin.

20. (new) Digital amplifier for converting an audio signal to a power output comprising:

a power supply port;

a bridge circuit with at least one pair of switches; and

a ripple suppression circuit for suppressing voltage ripples in a supply voltage supplied to the bridge circuit with at least one pair of switches via the voltage supply port;

wherein the ripple suppression circuit is arranged between the power supply port and the bridge circuit with at least one pair of switches;

wherein the ripple suppression circuit comprises a linearly controlled voltage controller;

wherein the switches are transistors;

wherein the ripple suppression circuit is connected to a first transistor of the at least one pair of transistors; and

wherein the ripple suppression circuit is configured to drive the first transistor of the at least one pair of transistors in a linear region of the first transistor;

further comprising a reference voltage source which generates the reference voltage on the basis of a voltage at the power supply port to ensure a required compensation margin.

21. (new) Digital amplifier for converting an audio signal to a power output comprising:

a power supply port;

a bridge circuit with at least one pair of switches; and

a ripple suppression circuit for suppressing voltage ripples in a supply voltage supplied to the bridge circuit with at least one pair of switches via the voltage supply port;

Attorney Docket No. DE030102US1 Serial No. 10/552,060 wherein the ripple suppression circuit is arranged between the power supply port and the bridge circuit with at least one pair of switches;

wherein the ripple suppression circuit comprises a linearly controlled voltage controller;

wherein the linearly controlled voltage controller is for multiple channels of the amplifier;

wherein the least one pair of switches is configured as an H-bridge; and wherein a coarse supply voltage setting is applied in front of the linearly controlled voltage controller.

Attorney Docket No. DE030102US1 Serial No. 10/552,060